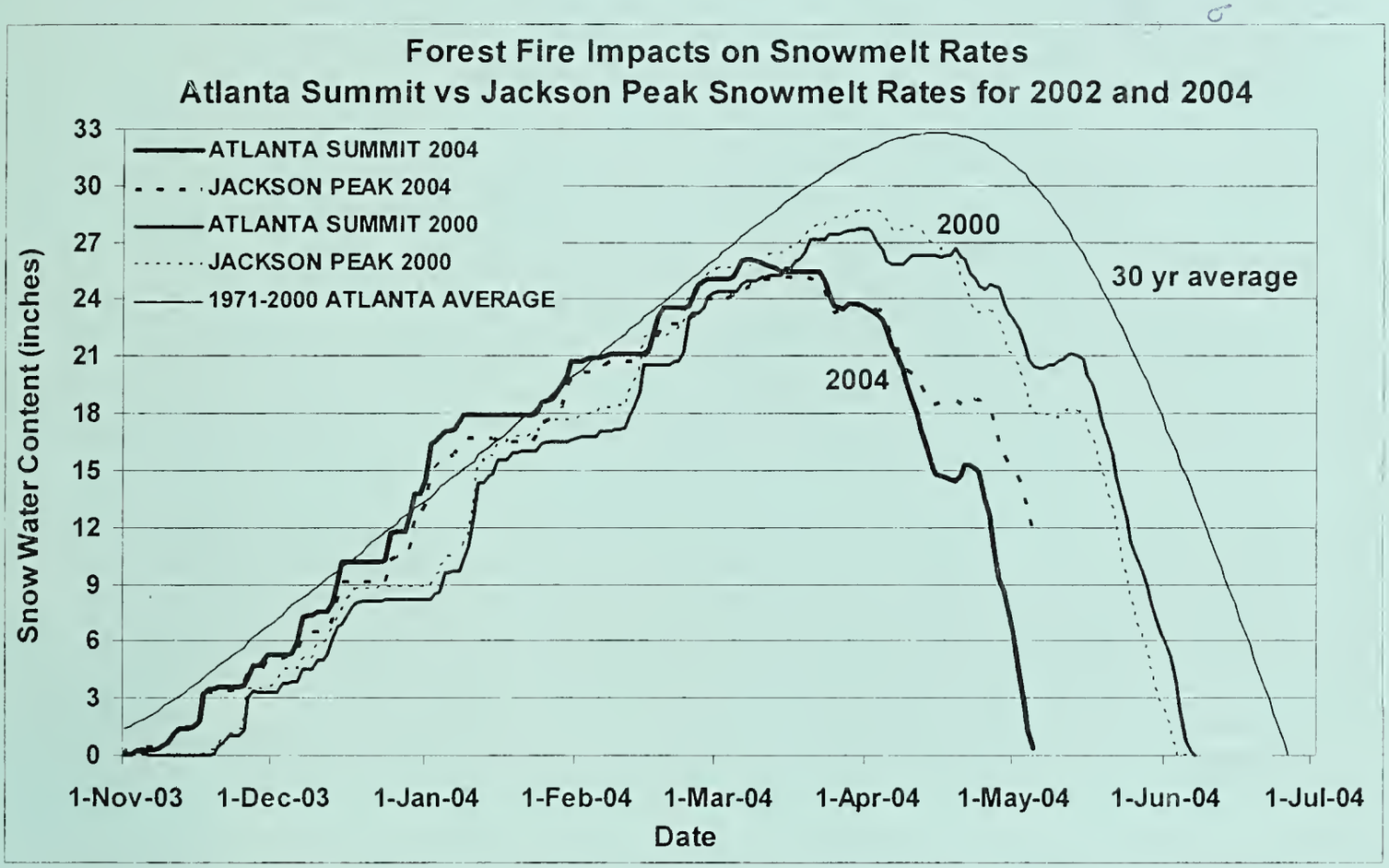
Idaho Water Supply Outlook Report June 1, 2004



In the year 2000, Atlanta Summit and Jackson Peak SNOTEL sites showed similar snowmelt rates and melt out dates as expected because they are in the same basin, at similar elevations and only 25 miles apart. However in 2004, the snow at Atlanta Summit melted at a significantly more rapid rate than the snow at Jackson Peak and it melted out nearly two full months earlier than the 30 year average melt out date. In early April, both sites held approximately 25 inches of snow water. By May 1st, Atlanta Summit held only 6.4 inches of snow water (2nd lowest value in last 55 years of data), whereas Jackson Peak still retained 15.2 inches. The difference in melt rates may be explained by a fire that burned much of the surrounding forest near the Atlanta Summit site and actually damaged some of the weather sensors in the summer of 2003. Previous years' fires across the state may have had similar effects on melt processes of local snowpacks resulting in more rapid melt and earlier melt out dates. Looking ahead to another dry summer and low water year, fire may play a large role in snow distribution and melt processes of the snowpack in years to come.

Basin Outlook Reports
and Federal - State - Private Cooperative Snow Surveys

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Internet Web Address
http://www.id.nrcs.usda.gov/snow/

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

IDAHO WATER SUPPLY OUTLOOK REPORT

June 1, 2004

SUMMARY

Water shortages will be the most severe in central, southern and eastern Idaho. Water users should be prepared for possibly the lowest supplies yet of this five year drought in the Lemhi, Big Wood, Big Lost, Little Lost, parts of the Upper Snake and Bear basins. How severely the water shortages affect you depends on your use of water or water right. Streams are forecast at or near record low in the Lemhi, lower Big Wood, Big Lost, Little Lost and Bear basins. The Snake River near Heise is forecast at 46% of average, record low is 36% in 2001. However, when the projected streamflow is combined with the record low storage in Palisades and Jackson reservoirs, produces a Surface Water Supply Index (SWSI) of -3.9, which is record low for the 1971 to present SWSI analysis period. Elsewhere, shortages will be moderate in the Boise basin, and water supplies will be adequate in the Owyhee and Payette basins. The highest streamflow forecasts are 60-90% of average for Dworshak Reservoir inflow and Coeur d'Alene River.

SNOWPACK

Only the higher elevation snow measuring sites have snow. The snowpacks are 60% of average in the Panhandle Region and Clearwater basin and 54% in the Upper Snake which also includes a few snow measuring sites in Montana that are near average. The remaining snow in the Salmon, west-central, central and Bear basins is about 30% of average and is melted in the basins south of the Snake River.

PRECIPITATION

After March-April combined precipitation was at or near record low for 50 of the 70 Idaho SNOTEL sites, Mother Nature delivered record high May precipitation in the Clearwater basin. This is based on the 20 plus years of daily SNOTEL precipitation data. May precipitation amounts in the Clearwater ranged from 5-12 inches while average May amounts are 3-5 inches. In comparison to the amount of moisture provided by Idaho's mountainous snowpacks, Savage Pass SNOTEL in the Clearwater Basin provided 23 inches of snowmelt water for the April 1 - May 31 period. May precipitation ranged from 200-280% of average for several SNOTEL sites in central and north-central Idaho, while the rest of the state was in the 100-200% of average range.

RESERVOIRS

Reservoir storage varies across the state with several full and several at or near record low levels. Magic Reservoir is 24% full, second lowest May 31 storage since 1917, only 1992 had less water because the irrigation water was nearly depleted by June 1. On May 31, Mackay Reservoir was storing only 13,000 acre-feet, 2nd lowest since storage started in 1926, only 1934 had less water. Bear Lake is 16% full, at the lowest level since the 1930s. Blackfoot Reservoir is 17% full, 21 % of average, lowest since 1934. Water rights will not fill in Jackson Lake and Palisades Reservoir whose combined capacity is 37% of capacity, half of average. Oakley and Salmon Falls reservoirs are about 25% of full. Bear Lake is 16% of capacity and will be empty in terms of usable water by mid-summer. On the positive side, water storage facilities that are full or near full include: Pend Oreille, Coeur D'Alene, Dworshak, Cascade, Mann Creek, Lucky Peak, Little Wood and Island Park.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive and in some cases, dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in this report.

STREAMFLOW

Streamflow forecasts are now at or near record low volumes in the Lemhi, Big Wood, Big Lost and Little Lost basins. The lowest streamflow forecasts in the state this season were in the Bear River at 5% of average, but now Camas Creek and Magic Reservoir inflow are also forecast at 5% of average for the June-July period. The Big Lost, Little Lost and Lemhi rivers are also forecast near record low at about 20% of average. The June-September streamflow for the Snake River near Heise calls for 46% of average, record low is 36% in 2001. However, when combined with record low storage in Palisades and Jackson, produces a Surface Water Supply Index (SWSI) of -3.9, which is record low for the 1971 to present analysis period. Central and southeastern Idaho water users should be prepared for possibly the lowest supplies of this five year drought. Shortage will occur for the Upper Snake water users, severity depends on your water use or water right.

Previously the SWSI was only updated during the planning season January – May. Starting this year, this index will be updated the beginning of each month throughout the summer because of increased interest in its ability to monitor drought conditions. The monthly values will be posted on the Idaho NRCS Snow Survey Water Supply web page under 'Drought and Surface Water Supply Index' at this address: http://www.id.nrcs.usda.gov/snow/watersupply/swsi-main.html Numerous graphs are available for users to access and visualize the wet and dry cycles for their basin of interest.

RECREATION

Snowmelt streamflow peaks have occurred in Idaho, nearly a month earlier than normal in some basins. Hot temperatures in early June may produce one more slight rise in headwater streams north of the Snake River and in the Upper Snake basin, but without additional precipitation the increases will not be very great. Headwater streams will return to baseflow levels earlier than normal and remain below normal for the rest of summer. Cascade Reservoir is full while Anderson Ranch Reservoir is 89% full. These reservoirs will provide good flows for boating through August or into September. Drafting of reservoirs is occurring in other reservoirs as outflows exceed inflows. Most southern and central Idaho reservoirs will be at their minimum storage levels by the end of summer.

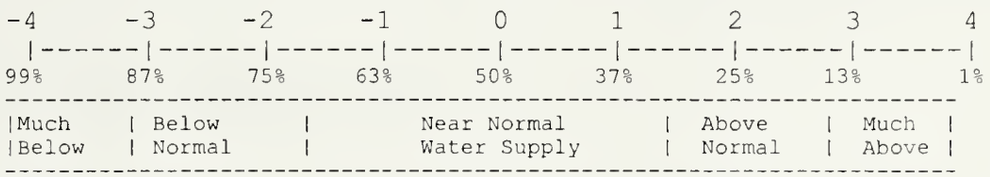
IDAHO SURFACE WATER SUPPLY INDEX (SWSI) As of June 1, 2004

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.0 (abundant supply) to -4.0 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences. The SWSI analysis period is from 1971 to present.

SWSI values provide a more comprehensive outlook of water availability by combining streamflow forecasts and reservoir storage where appropriate. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been determined for some basins to indicate the potential for agricultural irrigation water shortages.

BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortage May Occur When SWSI is Less Than*
CLEARWATER	-1.9	2000	NA
SALMON	-2.9	2001	NA
WEISER	-1.5	2000	NA
PAYETTE	-2.7	2002	NA
BOISE	-2.1	2002	-2.1
BIG WOOD	-3.7	2001	-1.0
LITTLE WOOD	-2.7	2002	-2.0
BIG LOST	-3.9	1992	-0.5
LITTLE LOST	-3.9	1994	0.0
SNAKE (HEISE)	-3.9	2001	-2.0
OAKLEY	-2.5	2001	-1.0
SALMON FALLS	-3.2	2002	-1.0
BRUNEAU	-2.5	2003	NA
BEAR RIVER	-3.9	2003	-3.8

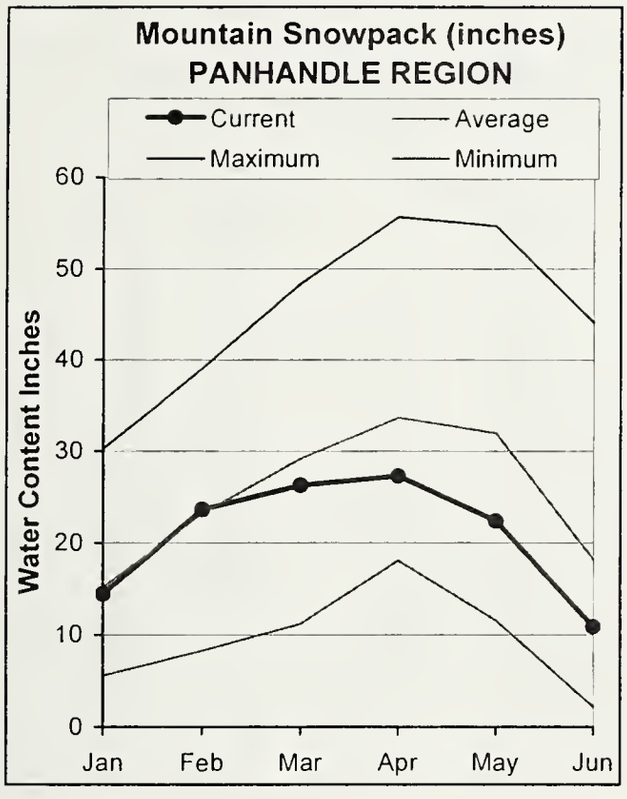
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION

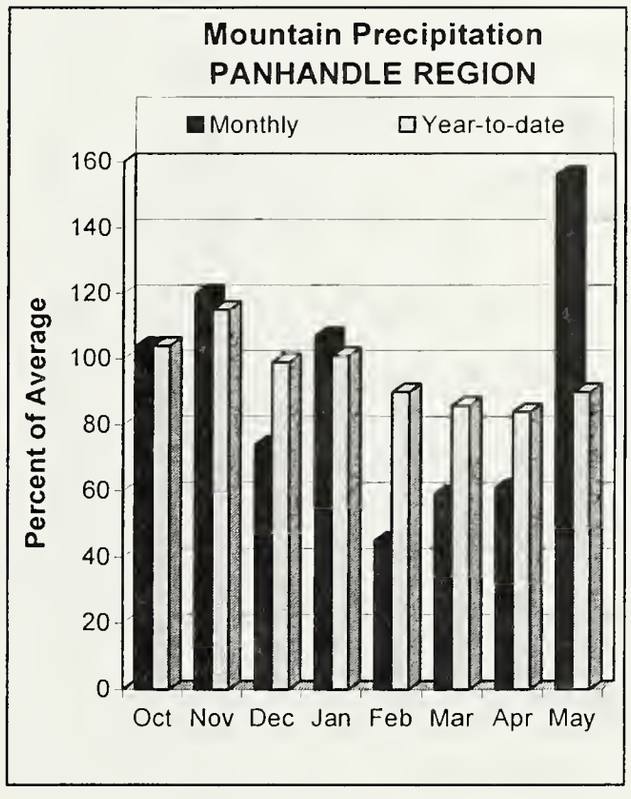


NA = Not Applicable

Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply," represents three SWSI units and would be expected to occur about one-third (36%) of the time.

PANHANDLE REGION
JUNE 1, 2004





WATER SUPPLY OUTLOOK

Monthly precipitation in May was 156% of average and above average for the first time since January. Water year to date precipitation increased to 90% of average, which is the same as last year. The remaining snow varies but is about 60% of average and the lowest June 1 snowpack in the Panhandle Region since 2001. Coeur d'Alene Lake is 96% of its summer level. The Spokane basin snowpack is 39% of average, 81% of last year. Residual streams are projected at 70% of average for the Spokane River and should be enough to maintain water levels in Coeur d'Alene Lake through Labor Day. The Pend Oreille basin snow is 64% of average, the lake is 84% of its summer level, and the June-September inflow is projected at 68% of average. Other streamflow tributaries, such as Smith, Boundary and Moyie rivers are forecast at 60-70% of average. With streams peaking earlier and lack of mountain snow to sustain streamflows this summer, streams will return to below average baseflows for the rest of summer. Water supplies will be less than last year, but should still be adequate to mitigate drought effects especially when compared to southern Idaho.

PANHANDLE REGION
Streamflow Forecasts - June 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	JUN-JUL	2166	2317	2420	62	2610	3030	3920
	JUN-SEP	3042	3237	3370	67	3600	4100	5000
MOYIE RIVER at Eastport	JUN-JUL	90	96	100	69	113	133	145
	JUN-SEP	99	106	110	69	125	147	160
SMITH CREEK	JUN-JUL	25	29	32	64	38	48	50
	JUN-SEP	26	31	35	63	43	54	56
BOUNDARY CREEK	JUN-JUL	23	26	27	59	31	38	46
	JUN-SEP	26	29	31	60	36	42	52
CLARK FK at Whitehorse Rpds (1,2)	JUN-JUL	3361	3616	3790	67	4260	5290	5620
	JUN-SEP	4105	4412	4620	68	5140	6290	6750
PEND OREILLE Lake Inflow (2)	JUN-JUL	3656	3926	4110	67	4620	5370	6120
	JUN-SEP	4399	4721	4940	68	5500	6330	7280
PRIEST near Priest River (1,2)	JUN-JUL	176	190	200	69	225	280	290
	JUN-SEP	211	228	240	70	270	330	345
COEUR D'ALENE at Enaville	JUN-JUL	74	114	141	89	168	206	159
	JUN-SEP	105	148	178	90	206	251	198
ST. JOE at Calder	JUN-JUL	162	210	245	65	280	330	380
	JUN-SEP	210	260	295	66	330	380	450
SPOKANE near Post Falls (2)	JUN-JUL	270	390	475	70	560	680	675
	JUN-SEP	345	475	560	72	645	775	775
SPOKANE at Long Lake (2)	JUN-JUL	400	535	625	74	715	850	840
	JUN-SEP	585	730	825	78	925	1065	1060

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	3199.0	2988.0	2588.0
FLATHEAD LAKE	1791.0	1593.0	1547.0	1499.2
NOXON RAPIDS	335.0	322.0	332.7	313.6
PEND OREILLE	1561.3	1318.7	1222.7	1333.1
COEUR D'ALENE	238.5	228.5	216.5	270.4
PRIEST LAKE	119.3	121.6	136.0	138.5

PANHANDLE REGION
Watershed Snowpack Analysis - June 1, 2004

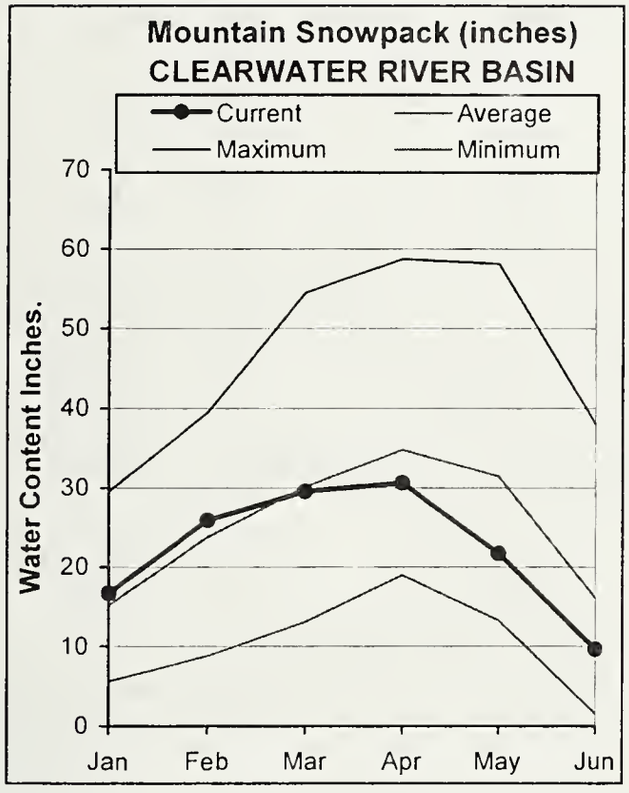
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	8	61	49
Moyie River	1	0	0
Priest River	2	59	73
Pend Oreille River	45	65	64
Rathdrum Creek	1	0	0
Hayden Lake	0	0	0
Coeur d'Alene River	4	74	10
St. Joe River	4	79	66
Spokane River	7	81	39
Palouse River	1	0	0

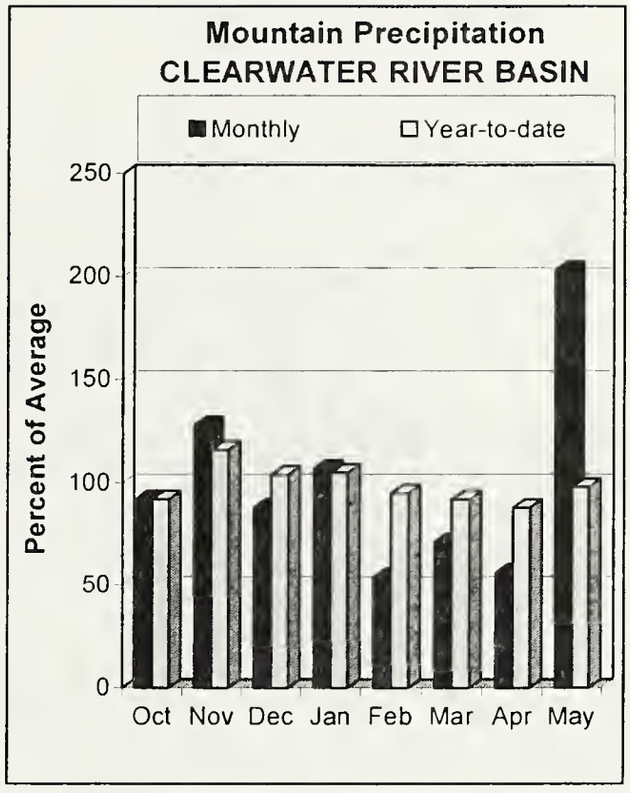
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

CLEARWATER RIVER BASIN
JUNE 1, 2004





WATER SUPPLY OUTLOOK

Record high precipitation fell in May at nearly all the Clearwater basin SNOTEL sites. This is based on the 20 plus years of daily SNOTEL precipitation data. May precipitation, which was the highest in the state at 200% of average, helped, but streams are receding with the return of sunny weather and lack of mountainous snow to sustain the flows. May precipitation amounts ranged from 5-12 inches while average May amounts are 3-5 inches. Water year to date precipitation amounts increased to 97% of average from 88% a month ago. The greatest amounts fell east of Pierce in the North Fork Clearwater and Lochsa basins. As a result, the rain and remaining snow in the Lochsa and North Fork Clearwater rivers exceeded their previous peaks in May. The Clearwater River at Orofino peaked at 50,000 cfs May 28, which is similar in magnitude to last year's peak. The end of May precipitation was enough for the Selway River to match its pervious snowmelt generated peak of 18,000 cfs on May 6. The remaining snowpack on June 1 is about half of average and two-thirds of last year. Dworshak Reservoir is nearly full after being at 80% of capacity a month ago. Residual inflows for Dworshak Reservoir are projected at 65% of average, slightly less than last year. The Selway and Lochsa are forecast at 57% of average. Streamflow hydrographs are on the downhill side and will decrease to below normal summer levels with snow at only half of average.

CLEARWATER RIVER BASIN
Streamflow Forecasts - June 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SELWAY near Lowell	JUN-JUL	365	460	525	56	590	685	945
	JUN-SEP	420	525	600	57	675	780	1050
LOCHSA near Lowell	JUN-JUL	290	340	370	57	400	450	655
	JUN-SEP	335	385	420	57	455	505	735
DWORSHAK RESV INFLOW (1,2)	JUN-JUL	471	563	625	65	720	935	960
	JUN-SEP	445	670	775	69	880	1100	1120
CLEARWATER at Orofino (1)	JUN-JUL	715	1080	1240	63	1400	1770	1970
	JUN-SEP	820	1210	1390	63	1570	1960	2220
CLEARWATER at Spalding (1,2)	JUN-JUL	1311	1650	1880	64	2240	3030	2960
	JUN-SEP	1556	1927	2180	65	2570	3420	3370

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	3366.1	3089.5	3040.7

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - June 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	8	74	67
Lochsa River	2	2	2
Selway River	4	21	23
Clearwater Basin Total	14	60	57

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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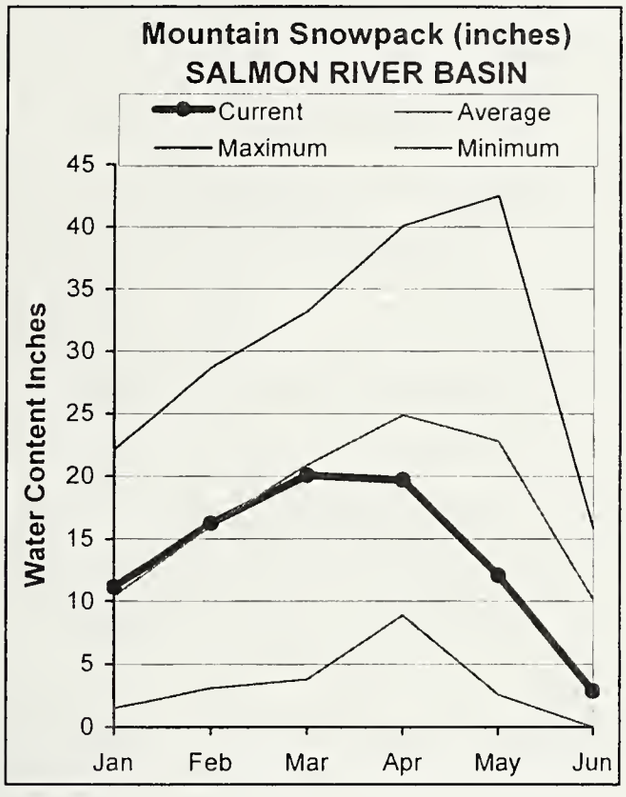
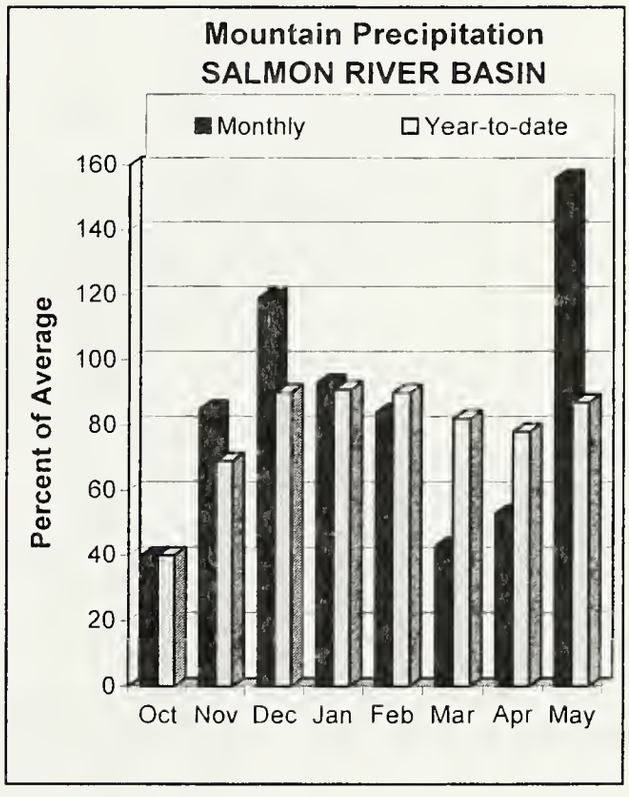
SALMON RIVER BASIN
JUNE 1, 2004





WATER SUPPLY OUTLOOK

May precipitation was 156% of average. Big Creek Summit and Banner Summit SNOTEL sites received record high May precipitation for the 20 plus years of daily SNOTEL data. This helped produce another rise in streamflow but was too little too late as the majority of snow has already melted. Water year to date precipitation increased from 77% of average a month ago to 87% on June 1. The remaining Salmon basin snowpack is about 30% of average except in the Lemhi basin where the Montana sites are doing better. Deadwood Summit SNOTEL has 10 inches of snow water, average is 26 inches. Last year it had 30 inches of snow water on June 1. The rain produced another peak May 29 on the Middle Fork Salmon River at 4.8 feet, slightly higher than its earlier peak on May 6. The Salmon River at White Bird peaked at 36,000 cfs May 29, the lowest spring peak since 2001 when the snow was only half of average. June-September streamflow forecasts range from 19% of average for the Lemhi River to 40% for the Middle Fork and main Salmon rivers. As a result of the lack of high elevation snow, streams will remain low the rest of summer, especially on the Lemhi River. River runners and water users should plan accordingly for low summer streamflow conditions which will mirror the 2001 streamflow levels.

SALMON RIVER BASIN
Streamflow Forecasts - June 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	JUN-JUL	134	141	145	27	161	199	530
	JUN-SEP	213	226	235	35	260	315	670
Lemhi River nr Lemhi	JUN-JUL	7.5	8.9	10.0	19	11.1	12.9	52
	JUN-SEP	14.5	16.8	18.5	26	20	23	71
MF Salmon at MF Lodge	JUN-JUL	88	128	155	35	182	222	445
	JUN-SEP	133	185	220	42	255	305	530
SALMON at White Bird (1)	JUN-JUL	965	1057	1120	35	1300	1690	3220
	JUN-SEP	1323	1446	1530	40	1740	2200	3850

SALMON RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN
Watershed Snowpack Analysis - June 1, 2004

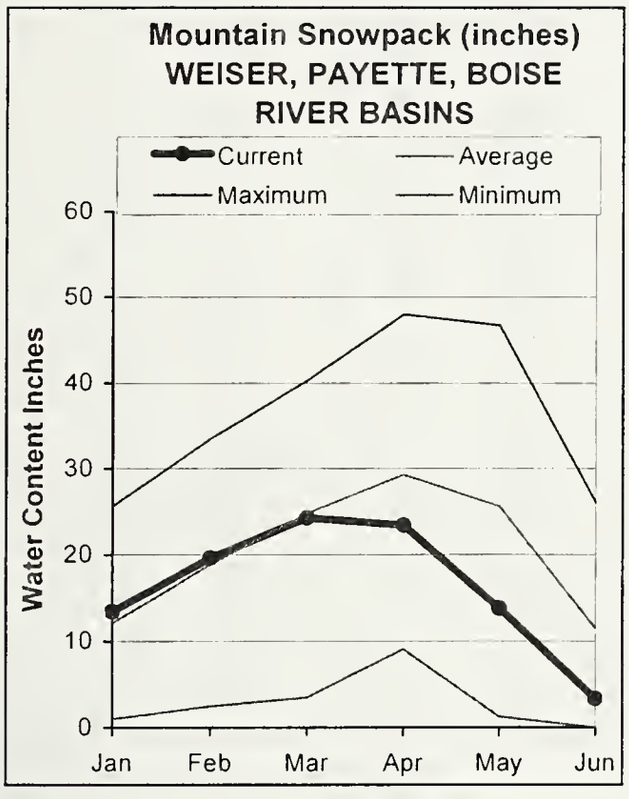
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	8	30	25
Lemhi River	6	86	76
Middle Fork Salmon River	3	26	30
South Fork Salmon River	3	25	27
Little Salmon River	4	0	0
Salmon Basin Total	23	36	35

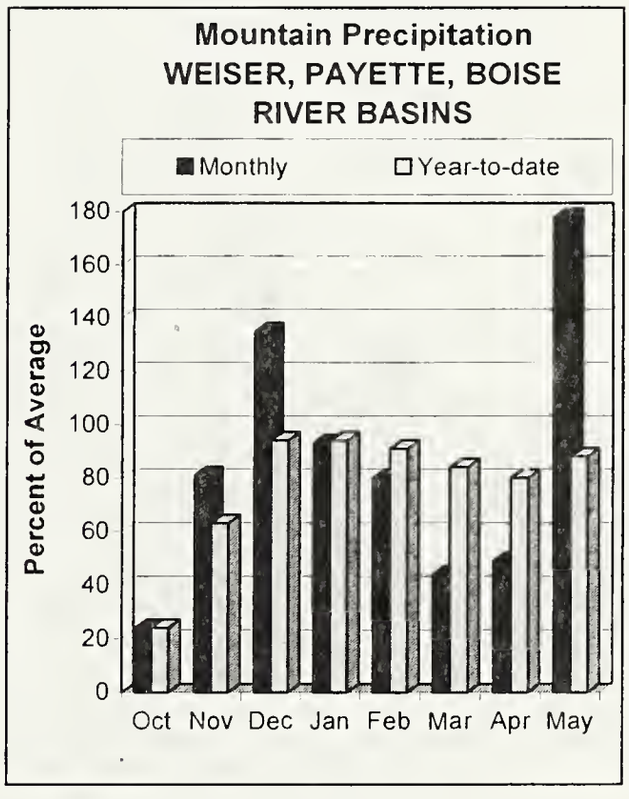
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS
JUNE 1, 2004





WATER SUPPLY OUTLOOK

May precipitation was 178% of average in these west-central mountains. May monthly totals range from 2-7 inches while monthly averages are 2-4 inches. Only Banner Summit and Big Creek Summit SNOTEL sites set new records for May precipitation for the 20 plus years of daily SNOTEL data. Water year to date precipitation is 88% of average, about 10% less than last year. Remaining snow is 16% of average in the Payette basin and 34% in the Boise basin. Recent rains helped to keep inflows higher and fill Cascade Reservoir. Deadwood Reservoir may come close to filling. June-September streamflow forecast for the Payette River near Horseshoe Bend is for 46% of average, about half of last year, but will provide adequate water supplies for its users along with fish flow water. However, the Boise Reservoir system will not fill. Lucky Peak and Arrowrock water users will have adequate supplies, but Anderson Ranch irrigators will see only about 70 percent of their normal supplies. Boise River near Boise is forecast at 38% of average for June-September. Lucky Peak Reservoir should remain full through mid-to late July and then drafting will occur.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - June 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER near Weiser (1)	JUN-JUL	22	52	66	60	80	110	110
	JUN-SEP	41	74	89	64	104	137	139
SF PAYETTE at Lowman	JUN-JUL	70	87	99	40	111	128	245
	JUN-SEP	107	125	138	46	151	169	300
DEADWOOD RESERVOIR Inflow (1,2)	JUN-JUL	12.9	23	28	42	33	43	66
	JUN-SEP	17.0	28	33	45	38	49	74
LAKE FORK PAYETTE near McCall	JUN-JUL	12.9	18.0	21	47	24	29	45
	JUN-SEP	11.0	18.0	23	48	28	35	48
NF PAYETTE at Cascade (1,2)	JUN-JUL	56	74	86	40	117	183	215
	JUN-SEP	86	110	126	49	159	234	260
NF PAYETTE nr Banks (2)	JUN-JUL	64	85	100	38	139	194	265
	JUN-SEP	101	130	150	48	190	255	315
PAYETTE nr Horseshoe Bend (1,2)	JUN-JUL	221	253	275	39	330	460	710
	JUN-SEP	327	368	395	46	455	585	855
BOISE near Twin Springs (1)	JUN-JUL	87	98	105	38	125	166	280
	JUN-SEP	125	139	148	44	169	215	335
SF BOISE at Anderson Ranch Dam (1,2)	JUN-JUL	56	62	66	29	80	111	225
	JUN-SEP	70	79	84	32	101	139	260
MORES CREEK near Arrowrock Dam	JUN-JUL	10.0	13.4	15.7	49	18.0	21	32
	JUN-SEP	12.6	16.5	19.1	52	22	26	37
BOISE near Boise (1,2)	JUN-JUL	160	175	185	33	215	285	565
	JUN-SEP	227	247	260	38	295	375	680

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	11.0	11.0	10.5
CASCADE	693.2	693.0	636.8	588.6
DEADWOOD	164.0	147.1	126.6	139.0
ANDERSON RANCH	450.2	402.4	331.1	388.7
ARROWROCK	272.2	173.1	247.6	191.9
LUCKY PEAK	293.2	291.8	274.6	242.3
LAKE LOWELL (DEER FLAT)	165.2	116.5	122.6	133.5

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - June 1, 2004

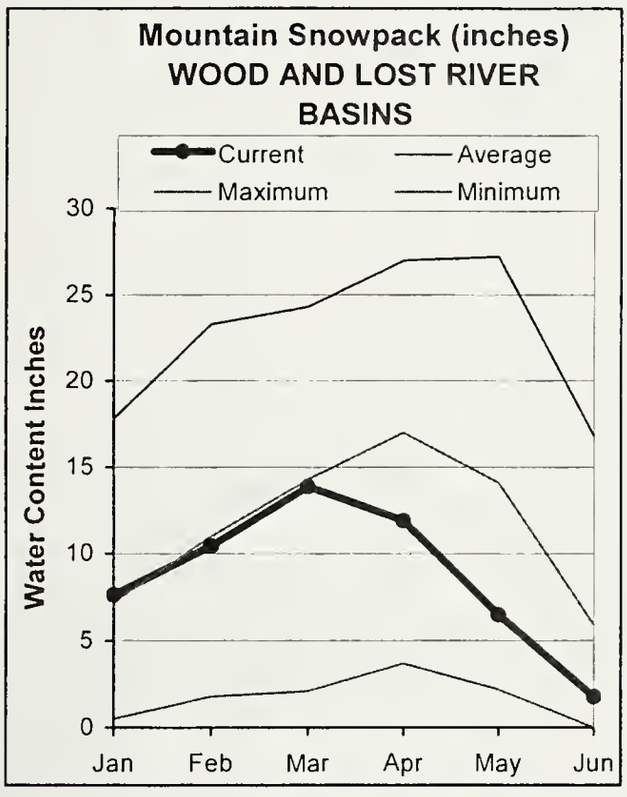
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	1	0	0
Weiser River	3	0	0
North Fork Payette	7	8	9
South Fork Payette	4	22	24
Payette Basin Total	12	15	16
Middle & North Fork Boise	5	27	23
South Fork Boise River	6	45	42
Mores Creek	2	0	0
Boise Basin Total	10	39	34
Canyon Creek	1	0	0

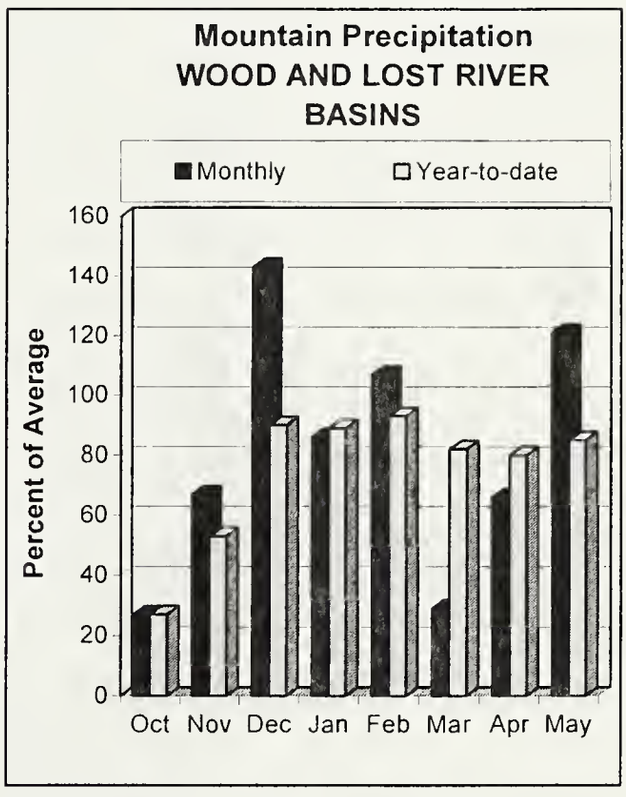
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

WOOD and LOST RIVER BASINS
JUNE 1, 2004





WATER SUPPLY OUTLOOK

May precipitation was 121% of average, barely increased streamflows and was not enough to make up for the record dry March 1 – April 30 period. Streams have peaked and are well below average for this time of year. Water year to date precipitation is 85% of average, slightly less than last year. The only remaining snow is in the Big Wood basin above Hailey and is 34% of average which is less than half of last year and about the same as 2002. Magic Reservoir is 24% full, 30% of average and its irrigators will be out of water later this month. The 46,400 acre-feet in Magic Reservoir is the second lowest May 31 storage since 1917, only 1992 had less water because the irrigation water was depleted by June 1. The Big Wood River streamflow forecasts call for 22% of average at Hailey, 5% at Bellevue and Camas Creek, and 7% for Magic Reservoir inflow, record low. The Surface Water Supply Index (SWSI) for the Big Wood basin is –3.7, only 1992 was lower for the SWSI analysis period of 1971-present because the reservoir was empty by June 1. The Big Lost River basin water supply is just as low with Mackay Reservoir storing only 13,000 acre-feet on May 31, 2nd lowest since storage started in 1926, only 1934 had less water. Streamflow forecasts are for record low values with the Big Lost River at Howell Ranch forecast at only 19% of average. It is not uncommon for the Big Lost River to go sub-surface downstream of the Howell gage, however, this is the first time locals can remember the river water remaining sub-surface during the snowmelt peak runoff season. The SWSI is -3.9 indicating this year will be the driest since the current drought started and the 1971 to present SWSI analysis period. Mackay Reservoir irrigators will be out of water by mid-June. Little Lost water users are in similar shape with the river forecast at 25% of average, record low, and a SWSI of -3.9. This season will be the driest year yet during this five year drought and some of the driest since the 1930s.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - June 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD at Hailey (1)	JUN-JUL	18.0	27	31	22	36	47	144
	JUN-SEP	29	42	48	27	55	71	177
BIG WOOD near Bellevue	JUN-JUL	0.0	2.0	5.0	5	9.0	16.0	101
	JUN-SEP	0.0	3.0	6.0	5	10.0	18.0	114
CAMAS CREEK near Blaine	JUN-JUL	0.0	0.2	0.6	5	1.2	2.4	13.2
	JUN-SEP	0.0	0.4	0.8	6	1.4	2.7	14.0
BIG WOOD below Magic Dam (2)	JUN-JUL	5.0	7.0	8.0	7	23	46	114
	JUN-SEP	6.0	8.0	9.0	7	25	48	130
LITTLE WOOD R ab High Five Ck	JUN-JUL	4.0	6.3	8.1	25	10.2	13.6	33
	JUN-SEP	6.1	9.1	11.5	30	14.1	18.6	39
LITTLE WOOD near Carey (2)	JUN-JUL	5.0	6.7	7.9	25	12.7	19.5	32
	JUN-SEP	7.5	9.9	11.5	30	17.1	25	39
BIG LOST at Howell Ranch	JUN-JUL	17.0	20	22	19	33	50	114
	JUN-SEP	23	27	30	22	43	62	139
BIG LOST below Mackay Reservoir (2)	JUN-JUL	15.9	19.5	22	23	33	48	97
	JUN-SEP	23	27	30	23	43	61	128
LITTLE LOST blw Wet Creek	JUN-JUL	3.4	4.1	4.6	25	6.6	9.5	18.1
	JUN-SEP	5.1	6.2	7.0	27	9.8	14.0	26

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	46.4	83.5	154.1
LITTLE WOOD	30.0	26.9	29.3	27.4
MACKAY	44.4	13.0	26.5	34.9

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - June 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Hailey	7	45	34
Camas Creek	2	0	0
Big Wood Basin Total	9	45	34
Fish Creek	0	0	0
Little Wood River	4	0	0
Big Lost River	4	0	0
Little Lost River	3	88	34
Birch-Medicine Lodge Cree	2	88	40
Camas-Beaver Creeks	2	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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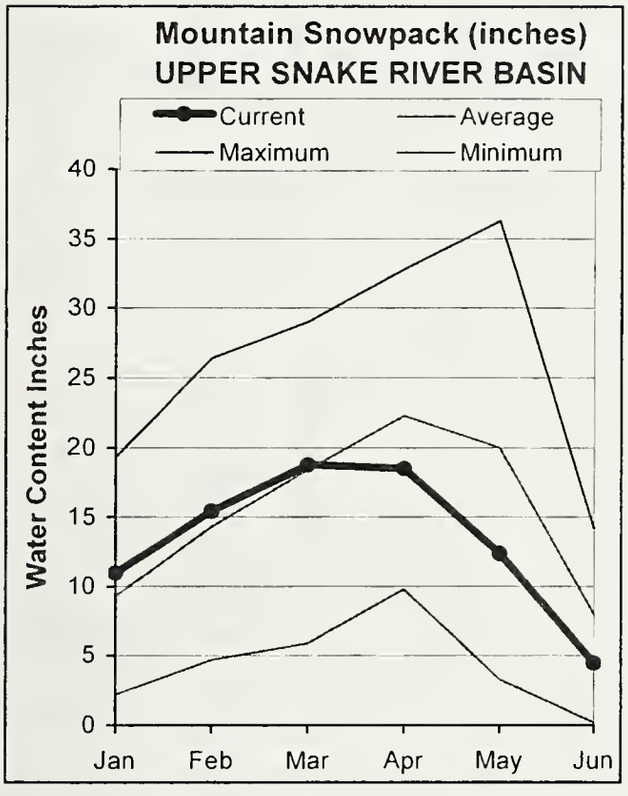
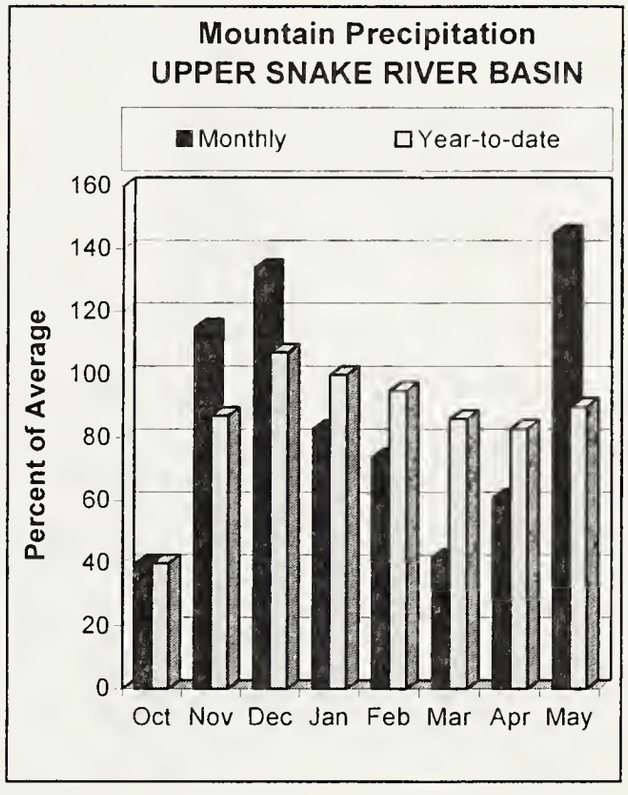
(2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER SNAKE RIVER BASIN
JUNE 1, 2004





WATER SUPPLY OUTLOOK

May mountain precipitation was 145% of average in the Upper Snake. The above average precipitation helped but will not change the water supply picture much as the remaining snow cannot sustain current streamflow levels. The last time monthly precipitation was greater than 145% of average in the Upper Snake basin was September 2002. Water year to date precipitation is 90% of average, slightly better than last year. The better precipitation is not noticeable due to the five year cumulative drought effects. The remaining snowpack in the Henrys Fork sounds encouraging at 60% of average, however, of the five measuring sites with snow, two are just outside the Henrys Fork basin in Montana and reporting a near average June 1 snowpack. The snowpack above Palisades Reservoir is 42% of average. Residual streamflow forecasts range from 30-50% of average for most streams. The June-September streamflow for the Snake River near Heise is for 46% of average, record low was 36% in 2001. However, when combined with record low storage in Palisades and Jackson, produces a Surface Water Supply Index (SWSI) of -3.9, which is record low for the 1971 to present analysis period. Water rights in American Falls, Palisades and Jackson will not fill and much less rental water is available in the rental pool this year when compared to last year. How severe the water shortages are depends upon your water use or water right.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - June 1, 2004

Forecast Point	Forecast Period	<<== Drier == Future Conditions == Wetter ==>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK near Ashton (2)	JUN-JUL	110	122	130	53	145	170	245
	JUN-SEP	182	199	210	48	235	265	440
HENRYS FORK near Rexburg (2)	JUN-JUL	374	407	430	52	475	535	830
	JUN-SEP	573	616	645	50	705	785	1280
FALLS near Squirrel (1,2)	JUN-JUL	27	32	35	17	53	92	205
	JUN-SEP	52	58	63	23	83	125	275
TETON near Driggs	JUN-JUL	24	27	30	28	39	53	108
	JUN-SEP	44	50	54	35	66	83	153
TETON near St. Anthony	JUN-JUL	68	79	86	36	106	136	240
	JUN-SEP	118	134	145	45	170	205	320
SNAKE near Moran (1,2)	JUN-JUL	121	143	157	32	202	302	490
	JUN-SEP	166	192	210	36	260	365	580
PACIFIC CREEK at Moran	JUN-JUL	23	27	30	30	40	54	100
	JUN-SEP	29	34	38	36	48	62	106
SNAKE above Palisades (2)	JUN-JUL	430	475	505	34	595	725	1470
	JUN-SEP	673	734	775	42	875	1015	1840
GREYS above Palisades	JUN-JUL	65	73	79	42	93	113	188
	JUN-SEP	102	113	120	49	135	158	245
SALT near Etna	JUN-JUL	46	55	61	38	77	101	162
	JUN-SEP	87	100	108	45	127	154	240
PALISADES RESERVOIR INFLOW (1,2)	JUN-JUL	619	685	730	37	850	1120	1950
	JUN-SEP	966	1058	1120	45	1260	1560	2500
SNAKE near Heise (2)	JUN-JUL	663	736	785	38	915	1105	2050
	JUN-SEP	1037	1140	1210	46	1360	1590	2650
WILLOW CREEK nr Ririe (2)	JUN-JUL	1.6	2.9	4.0	20	5.3	7.6	20
SNAKE nr Blackfoot (1,2)	APR-JUL	761	811	845	18	1029	1435	4600
	APR-SEP	1205	1268	1310	23	1494	1900	5620
	JUN-JUL	701	787	845	32	1025	1435	2670
	JUN-SEP	1148	1244	1310	36	1490	1900	3690
PORTNEUF at Topaz	JUN-JUL	7.5	9.0	10.0	27	14.0	19.0	37
	JUN-SEP	15.0	16.8	18.1	33	22	27	55
AMERICAN FALLS RESV INFLOW (1,2)	JUN-JUL	562	763	900	54	1155	1705	1660
	JUN-SEP	971	1220	1390	67	1645	2195	2070

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of May

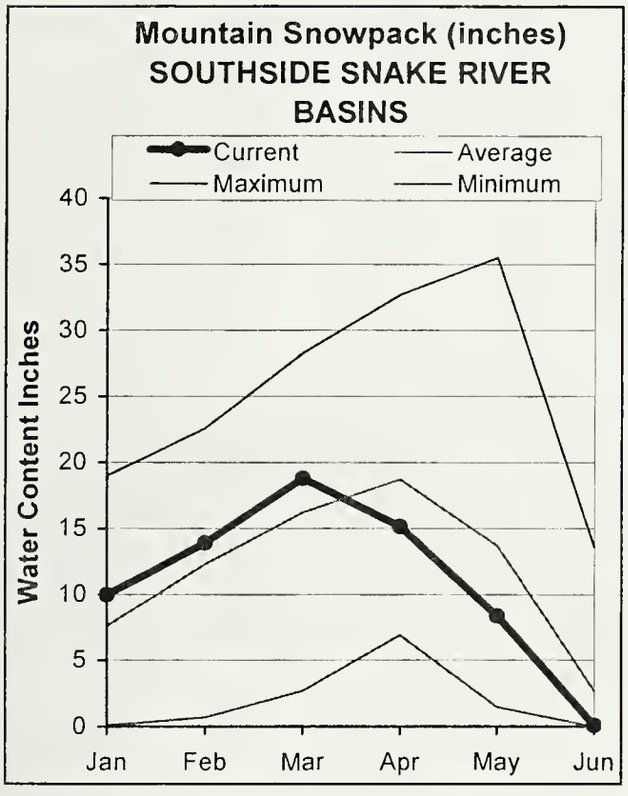
Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	76.8	78.8	89.2
ISLAND PARK	135.2	136.2	132.0	132.8
GRASSY LAKE	15.2	9.8	13.6	14.4
JACKSON LAKE	847.0	454.9	615.3	572.6
PALISADES	1400.0	366.6	809.6	1033.6
RIRIE	80.5	45.7	45.2	70.3
BLACKFOOT	348.7	59.9	94.7	287.8
AMERICAN FALLS	1672.6	1030.4	1051.8	1476.1

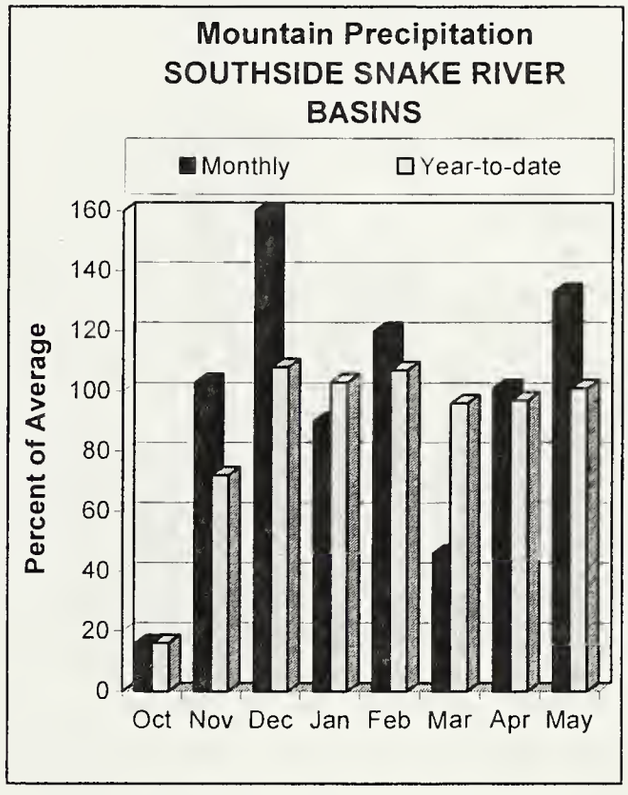
UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - June 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Henrys Fork-Falls River	7	159	66
Teton River	2	483	21
Henrys Fork above Rexburg	9	165	59
Snake above Jackson Lake	5	90	46
Gros Ventre River	2	108	64
Hoback River	5	142	39
Greys River	4	177	41
Salt River	3	0	2
Snake above Palisades	18	117	42
Willow Creek	2	0	0
Blackfoot River	2	0	0
Portneuf River	3	0	0
Snake abv American Falls	30	134	54

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

SOUTHSIDE SNAKE RIVER BASINS
JUNE 1, 2004





WATER SUPPLY OUTLOOK

For two months in a row, these basins south of the Snake River have received average or better precipitation. Precipitation in May was 133% of average and is average since the water year started. The remaining snow at measuring stations in these basins just melted. Streams increased with the May precipitation, but remain below average. Storage levels in Salmon Falls and Oakley reservoirs are slightly better than last year, but will decrease to their minimum levels as inflows are only projected at 28% of average for Salmon Falls Creek. The Oakley Reservoir inflow forecast is higher at 62% of average because of recent rains increasing the flow and the stream still receding. Owyhee Reservoir is in good shape at 62% of average, and will provide adequate irrigation water. The reservoir has 160,000 acre-feet more than a year ago. The inflow forecast for Owyhee Reservoir calls for 40% of average for the June-July period. Bruneau River is forecast at 32% of average, low but similar to the past few years. The spring precipitation helped the rangeland areas of southern Idaho, but the surface water supplies will remain low and similar to the past few years in the Bruneau, Salmon Falls and Oakley basins.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - June 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESV INFLOW	JUN-JUL	2.62	4.00	5.10	62	6.34	8.41	8.20
	JUN-SEP	4.4	6.1	7.3	65	8.7	10.9	11.3
SALMON FALLS CREEK nr San Jacinto	JUN-JUL	5.2	6.2	6.8	28	8.9	12.9	24
	JUN-SEP	6.9	8.4	9.4	34	12.4	16.4	28
SALMON FALLS RESV STORAGE	JUL-31	1.9	10.0	15.5	22	21	29	71
BRUNEAU near Hot Spring	JUN-JUL	10.9	19.1	26	32	34	48	82
	JUN-SEP	15.7	25	33	36	42	57	92
OWYHEE near Gold Creek (2)	JUN-JUL	0.00	0.00	0.01	1	0.27	1.27	1.53
	JUN-SEP	0.00	0.00	0.01	4	0.28	1.35	0.28
OWYHEE near Rome	JUN-JUL	12.5	19.4	25	35	31	42	71
	JUN-SEP	22	30	37	41	44	56	91
OWYHEE RESV INFLOW (2)	JUN-JUL	11.4	23	33	40	45	66	82
	JUN-SEP	31	39	45	40	51	61	112
SUCCOR CK nr Jordan Valley	JUN-JUL	1.85	2.18	2.40	100	2.62	2.95	2.40

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	74.5	20.7	17.4	45.0
SALMON FALLS	182.6	41.7	27.9	101.2
WILDHORSE RESERVOIR	71.5	29.8	31.6	58.4
OWYHEE	715.0	380.2	222.6	614.6
BROWNLEE	1419.3	1408.9	1405.6	1263.0

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - June 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	1	0	0
Goose-Trapper Creeks	3	0	0
Salmon Falls Creek	5	160	5
Bruneau River	5	160	5
Owyhee Basin Total	7	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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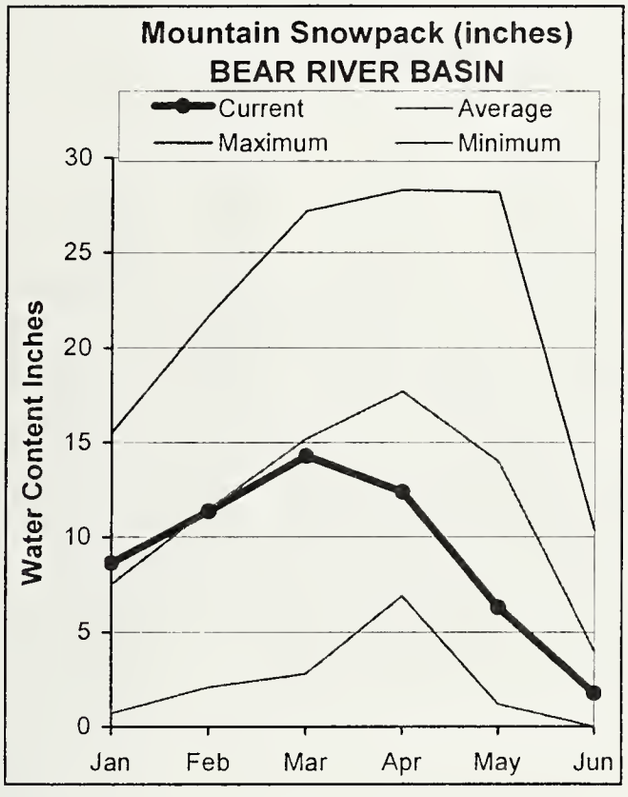
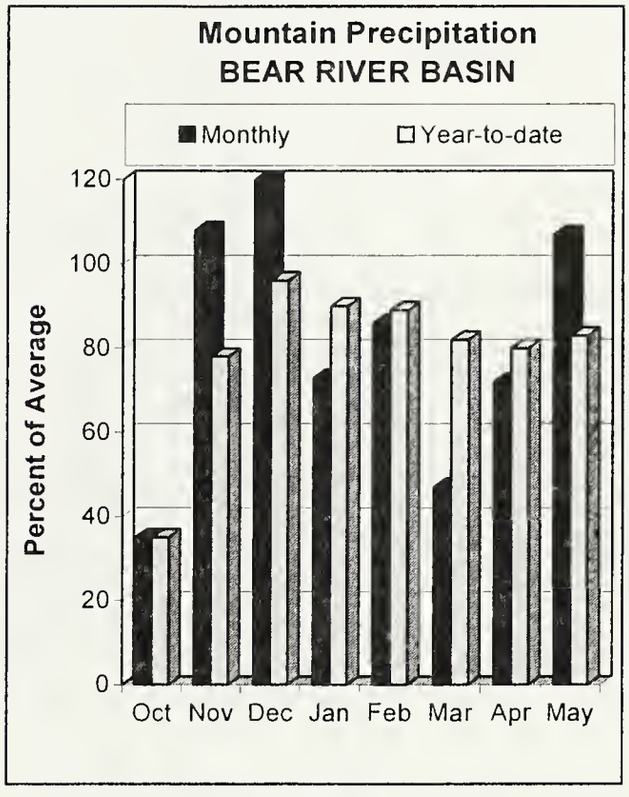
BEAR RIVER BASIN
JUNE 1, 2004





WATER SUPPLY OUTLOOK

May finally brought some well needed precipitation to the Bear River basin. May precipitation was 107% of average with Franklin Basin SNOTEL site boasting the highest precipitation total of 5.8 inches for May, average is 3.8 inches. However, due to lack of precipitation the previous four months, the water year to date precipitation is still only 83% of average, slightly better than last year. The snowpack is melted except in the higher elevation areas. Spring Creek Divide SNOTEL site is the only site over 9,000 feet in elevation out of four that still retains snow and is 70% of average (10.5 inches of snow water equivalent). Last year there was 4.7 inches of snow water on June 1. This means that the snow supply is essentially gone and the only input will be from summer precipitation which typically declines after May. Observed streamflow for the Bear River near Stewart Dam dropped 9,000 acre-feet from April to a dismal 500 acre-feet for May; this value is only 1% of the 76,000 acre-feet May average. Other tributaries around Bear Lake increased storage in the lake by 1,000 acre-feet during May. Bear Lake has 221,000 acre-feet which is 16% of capacity, 21% of average, however, 119,000 acre-feet is considered inactive or non-usable water. Bear Lake water users should now be prepared for the most severe shortages since the 1930s with streamflow at only about 5% of average again and 190,000 acre-feet less water in Bear Lake than last year. Montpelier Creek Reservoir is 65% of capacity and 79% of average which is also less than last year.

BEAR RIVER BASIN
Streamflow Forecasts - June 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear River nr UT-WY State Line	APR-SEP	46	50	53	42	60	69	125
	JUN-SEP	16.0	18.4	20	24	27	36	82
Bear River ab Reservoir nr Woodruff	APR-SEP	28	33	36	25	49	67	142
Smiths Fork nr Border	APR-JUL	40	44	46	45	48	52	103
	APR-SEP	48	53	56	46	59	64	121
	JUN-JUL	14.9	19.0	21	34	23	27	61
Bear River at Stewart Dam	APR-JUL	5.0	10.0	15.0	6	21	31	234
	APR-SEP	5.0	11.0	17.0	7	24	36	262
	JUN-JUL	3.0	4.0	5.0	5	25	55	110
	JUN-SEP	4.0	6.0	7.0	5	30	63	138

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEAR LAKE	1421.0	221.0	411.9	1052.3
MONTPELIER CREEK	4.0	2.6	3.5	3.3

BEAR RIVER BASIN
Watershed Snowpack Analysis - June 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	3	223	64
Bear River ab WY-ID line	10	223	20
Montpelier Creek	1	0	0
Mink Creek	1	0	0
Cub River	1	0	0
Bear River ab ID-UT line	15	223	15
Malad River	1	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report Streamflow forecasts are projections of runoff volumes tha
influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reserv
transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made to each forecast poir

Panhandle River Basins

KOOTENAI R AT LEONIA, ID
+ LAKE KOOCANUSA (STORAGE CHANGE)
BOUNDARY CREEK NEAR PORTHILL, ID – No Corrections
MOYIE RIVER AT EASTPORT, ID – No Corrections
SMITH CREEK NEAR PORTHILL, ID – No Corrections
CLARK FORK AT WHITEHORSE RAPIDS, ID
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS RESV (STORAGE CHANGE)
PEND OREILLE LAKE INFLOW, ID
+ PEND OREILLE R AT NEWPORT, WA
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS (STORAGE CHANGE
+ PEND OREILLE LAKE (STORAGE CHANGE)
+ PRIEST LAKE (STORAGE CHANGE)
PRIEST R NR PRIEST R, ID
+ PRIEST LAKE (STORAGE CHANGE)
COEUR D'ALENE R AT ENAVILLE, ID - No Corrections
ST. JOE R AT CALDER, ID - No Corrections
SPOKANE R NR POST FALLS, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)
SPOKANE R AT LONG LAKE, WA
+ COEUR D'ALENE LAKE (STORAGE CHANGE)
+ LONG LAKE, WA (STORAGE CHANGE)

Clearwater River Basin

DWORSHAK RESERVOIR INFLOW, ID
+ DWORSHAK RESV (STORAGE CHANGE)
- CLEARWATER R AT OROFINO, ID
+ CLEARWATER R NR PECK, ID
LOCHSA RIVER NR LOWELL - No Corrections
SELWAY RIVER NR LOWELL - No Corrections
CLEARWATER R AT OROFINO, ID - No Corrections
CLEARWATER R AT SPALDING, ID
+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT SALMON, ID - No Corrections
SALMON R AT WHITE BIRD, ID - No Corrections

Weiser, Payette, Boise River Basins

WEISER R NR WEISER, ID - No Corrections
SF PAYETTE R AT LOWMAN, ID - No Corrections
DEADWOOD RESERVOIR INFLOW, ID
+ DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
+ DEADWOOD RESV (STORAGE CHANGE)
LAKE FORK PAYETTE RIVER NR MCCALL, ID – No Corrections
NF PAYETTE R AT CASCADE, ID
+ CASCADE RESV (STORAGE CHANGE)

NF PAYETTE R NR BANKS. ID
+ CASCADE RESV (STORAGE CHANGE)
PAYETTE R NR HORSESHOE BEND, ID
+ DEADWOOD RESV (STORAGE CHANGE)
+ CASCADE RESV (STORAGE CHANGE)
BOISE R NR TWIN SPRINGS, ID - No Corrections
SF BOISE R AT ANDERSON RANCH DAM, ID
+ ANDERSON RANCH RESV (STORAGE CHANG
BOISE R NR BOISE, ID
+ ANDERSON RANCH RESV (STORAGE CHANG
+ ARROWROCK RESV (STORAGE CHANGE)
+ LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R AT HAILEY, ID - No Corrections
BIG WOOD R NR BELLEVUE, ID - No Corrections
CAMAS CREEK NEAR BLAINE – No Corrections
BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
+ MAGIC RESV (STORAGE CHANGE)
LITTLE WOOD R NR CAREY, ID
+ LITTLE WOOD RESV (STORAGE CHANGE)
BIG LOST R AT HOWELL RANCH NR CHILLY, ID - N
BIG LOST R BLW MACKAY RESV NR MACKAY, ID
+ MACKAY RESV (STORAGE CHANGE)
LITTLE LOST R BLW WET CK NR HOWE, ID - No Co

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
HENRYS FORK NR REXBURG, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
+ DIV FM HENRYS FK BTW ASHTON & ST. ANT
+ DIV FM HENRYS FK BTW ST. ANTHONY & RI
+ GRASSY LAKE (STORAGE CHANGE)
FALLS R ABV YELLOWSTONE CANAL NR SQUIRRE
+ GRASSY LAKE (STORAGE CHANGE)
TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Co
TETON R NR ST. ANTHONY, ID
- CROSS CUT CANAL
+ SUM OF DIVERSIONS ABV GAGE
SNAKE R NR MORAN, WY
+ JACKSON LAKE (STORAGE CHANGE)
PALISADES RESERVOIR INFLOW, ID
+ SNAKE R NR IRWIN, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)

SNAKE R NR HEISE, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
BLACKFOOT RESVERVOIR INFLOW, ID
+ BLACKFOOT RIVER

+ BLACKFOOT RESERVOIR (STORAGE CHANGE
SNAKE R NR BLACKFOOT, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID
PORTNEUF R AT TOPAZ, ID - No Corrections
AMERICAN FALLS RESERVOIR INFLOW, ID
+ SNAKE RIVER AT NEELEY
+ ALL CORRECTIONS MADE FOR HENRYS FK NR REXBURG, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT GAGES

Southside Snake River Basins

OAKLEY RESERVOIR INFLOW, ID
+ GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
+ TRAPPER CK NR OAKLEY, ID
SALMON FALLS CK NR SAN JACINTO, NV - No Corrections
BRUNEAU R NR HOT SPRINGS, ID - No Corrections
OWYHEE R NR GOLD CK, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR OWYHEE, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR ROME, OR – No Corrections
OWYHEE RESERVOIR INFLOW, OR
+ OWYHEE R BLW OWYHEE DAM, OR
+ OWYHEE RESV (STORAGE CHANGE)
+ DIV TO NORTH AND SOUTH CANALS
SUCCOR CK NR JORDAN VALLEY, OR - No Corrections
SNAKE R - KING HILL, ID - No Corrections
SNAKE R NR MURPHY, ID - No Corrections
SNAKE R AT WEISER, ID - No Corrections
SNAKE R AT HELLS CANYON DAM, ID
+ BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
SMITHS FORK NR BORDER, WY - No Corrections
THOMAS FORK NR WY-ID STATELINE - No Corrections (Disc)
BEAR R BLW STEWART DAM, ID
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
+ DINGLE INLET CANAL
+ RAINBOW INLET CANAL

MONTPELIER CK AT IRR WEIR NR MONTPELIER, ID (Disc)
+ MONTPELIER CK RESV (STORAGE CHANGE)
CUB R NR PRESTON, ID - No Corrections

RESERVOIR CAPACITY DEFINITIONS (Units in 1,000 acre-feet, KAF)

Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. This table lists these volumes for each reservoir, and defines the storage volumes NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage. (Revised January 2002)

BASIN/ RESERVOIR	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS CAPACITY INCLUDES
PANHANDLE REGION						
HUNGRY HORSE	39.73	--	3451.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00	--	335.0	ACTIVE
PEND OREILLE	406.20	112.40	1042.70	--	1561.3	DEAD+INACTIVE+ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE+ACTIVE
PRIEST LAKE	20.00	28.00	71.30	--	119.3	DEAD+INACTIVE+ACTIVE
CLEARWATER BASIN						
DWORSHAK	--	1452.00	2016.00	--	3468.0	INACTIVE+ACTIVE
WEISER/BOISE/PAYETTE BASINS						
MANN CREEK	1.61	0.24	11.10	--	11.1	ACTIVE
CASCADE	--	46.70	646.50	--	693.2	INACTIVE+ACTIVE
DEADWOOD	--	--	164.00	--	164.0	ACTIVE
ANDERSON RANCH	24.90	37.00	413.10	--	450.1	INACTIVE+ACTIVE
ARROWROCK	--	--	272.20	--	272.2	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE+ACTIVE
LAKE LOWELL	7.90	5.80	159.40	--	165.2	INACTIVE+ACTIVE
WOOD/LOST BASINS						
MAGIC	--	--	191.50	--	191.5	ACTIVE
LITTLE WOOD	--	--	30.00	--	30.0	ACTIVE
MACKAY	0.13	--	44.37	--	44.4	ACTIVE
UPPER SNAKE BASIN						
HENRYS LAKE	--	--	90.40	--	90.4	ACTIVE
ISLAND PARK	0.40	--	127.30	7.90	135.2	ACTIVE+SURCHARGE
GRASSY LAKE	--	--	15.18	--	15.2	ACTIVE
JACKSON LAKE	--	--	847.00	--	847.0	ACTIVE
PALISADES	44.10	155.50	1200.00	--	1400.0	DEAD+INACTIVE+ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--	--	348.73	--	348.7	ACTIVE
AMERICAN FALLS	--	--	1672.60	--	1672.6	ACTIVE
SOUTHSIDE SNAKE BASINS						
OAKLEY	--	--	74.50	--	74.5	ACTIVE
SALMON FALLS	48.00	--	182.65	--	182.6	ACTIVE
WILDHORSE	--	--	71.50	--	71.5	ACTIVE
OWYHEE	406.83	--	715.00	--	715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30	--	1419.3	INACTIVE+ACTIVE
BEAR RIVER BASIN						
WOODRUFF NARROWS	--	1.50	57.30	--	57.3	ACTIVE
WOODRUFF CREEK	--	4.00	4.00	--	4.0	ACTIVE
BEAR LAKE	--	--	1421.00	--	1421.0	ACTIVE
MONTPELIER CREEK	0.21	--	3.84	--	4.0	DEAD+ACTIVE

Interpreting Streamflow Forecasts

Introduction

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

Most Probable (50 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations, There is a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance that the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not mean that users should not use the most probable forecast; it means that they need to evaluate existing circumstances and determine the amount of risk they are willing to take by accepting this forecast value.

To Decrease the Chance of Having Too Little Water

If users want to make sure there is enough water available for their operations, they might determine that a 50 percent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough water available during the forecast period, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streamflow volume will exceed this forecast value.

There is a 30 percent chance the streamflow volume will be less than this forecast value.

90 Percent Chance of Exceeding Forecast. There is a 90 percent chance that the streamflow volume will exceed this forecast value.

There is a 10 percent chance the streamflow volume will be less than this forecast value.

To Decrease the Chance of Having Too Much Water

If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecast value.

10 Percent Chance of Exceeding Forecast. there is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecast value.

Using the foreeasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River near Death between March I and July 31.

Using the Higher Exceedence Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

If users anticipate extremely dry conditions for the remainder of the season, or if they determine the risk of using the 70 pereent chance of exceeding forecast is too great, then they might plan on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that five out of every ten years with similar conditions would produce streamflow volumes greater than 36,000 acre-feet was more than they would like to risk, they might plan on receiving 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three Out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SF PAYETTE RIVER at Lowman	APR-JUL	329	414	471	109	528	613	432
	APR-SEP	369	459	521	107	583	673	488
BOISE RIVER near Twin Springs (1)	APR-JUL	443	610	685	109	760	927	631
	APR-SEP	495	670	750	109	830	1005	

For more information concerning streamflow forecasting ask your ***local NRCS field office*** *for a copy of "****A* Field *Office Guide* for *Interpreting Streamflow Forecasts****" or visit our Web page.*

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